WHAT IS CLAIMED IS:

1. A method for synchronization in radio communication systems, the method comprising the steps of:

encapsulating symbols in an information stream;

modulating the information stream;

sending the modulated information stream with a first robustness level over a communication channel; and

reducing the level of robustness of the information stream to a second robustness level according to a predetermined function.

2. The method of claim 1, further comprising the step of:

dividing the information stream into a plurality of segments.

3. The method of claim 2, wherein the step of encapsulating symbols comprises the steps of:

adding Forward Error Correction (FEC) coding to a plurality of segments in the information stream using at least two different coding rates; and

varying the coding rates among the plurality of segments to change the robustness of the information stream from the first robustness level to the second robustness level.

4. The method of claim 3, wherein the plurality of segments to which the FEC coding is added includes a segment adjacent to where a demodulation of the information stream begins.

5. The method of claim 2, wherein the step of modulating the

information stream comprises the steps of:

modulating a plurality of segments in the information stream using at least two different modulation schemes; and

varying the modulation schemes among the plurality of segments to change the robustness of the information stream from the first robustness level to the second robustness level.

6. The method of claim 5, wherein the plurality of segments modulated using at least two different modulation schemes includes a segment adjacent to where a demodulation of the information stream begins.

7. The method of claim 5, wherein the step of encapsulating symbols comprises the step of:

adding Forward Error Correction (FEC) coding to at least one segment in the information stream;

wherein the varying of the modulation schemes and the adding of FEC coding change the robustness of the information stream from the first robustness level to the second robustness level.

8. The method of claim 5, wherein the step of encapsulating symbols comprises the steps of:

adding Forward Error Correction (FEC) coding to a plurality of segments in the information stream using at least two different coding rates; and

varying the coding rates among the plurality of segments;

wherein the varying of the modulation schemes and the varying of the coding rates change the robustness of the information stream from the first

robustness level to the second robustness level.

9. The method of claim 8, wherein the plurality of segments among which the modulation schemes vary and the plurality of segments among which the coding rates vary are different pluralities of segments.

10. The method of claim 8, wherein the plurality of segments among which the modulation schemes vary and the plurality of segments among which the coding rates vary are the same plurality of segments.

11. The method of claim 1, wherein the step of encapsulating symbols, comprises the steps of:

encoding the information stream using convolutional coding at a first coding rate;

puncturing the encoded information stream; and

varying a rate at which the encoded information stream is punctured to achieve a second coding rate, whereby the robustness level is changed from the first robustness level to the second robustness level.

12. The method of claim 11, wherein the puncturing of the encoded information stream occurs adjacent to a portion of the information stream where a demodulation of the information stream begins.

13. The method of claim 1, further comprising the steps of:

receiving the modulated information stream from the communication channel; and

demodulating the information stream after a first number of symbols have been received, wherein the first number of symbols is less than a

second number of symbols that would have to be received to demodulate a corresponding information stream sent over the communication channel only at the second robustness level.

14. The method of claim 1, wherein the information stream is comprised of packets.

15. The method of claim 14, wherein the packets comprise a training sequence.

16. An apparatus for synchronization in radio communication systems, comprising:

logic that encapsulates symbols in an information stream;

a modulator for modulating the information stream;

a transmitter for sending the modulated information stream with a first robustness level over a communication channel; and

logic that reduces the level of robustness of the information stream to a second robustness level according to a predetermined function.

17. The apparatus of claim 16, further comprising:

logic that divides the information stream into a plurality of segments.

18. The apparatus of claim 17, wherein the logic that encapsulates symbols comprises:

logic that adds Forward Error Correction (FEC) coding to a plurality of segments in the information stream using at least two different coding rates; and

logic that varies the coding rates among the plurality of segments to

change the robustness of the information stream from the first robustness level to the second robustness level.

19. The apparatus of claim 18, wherein the plurality of segments to which the FEC coding is added includes a segment adjacent to where a demodulation of the information stream begins.

20. The apparatus of claim 17, wherein the modulator comprises:

logic that modulates a plurality of segments in the information stream using at least two different modulation schemes; and

logic that varies the modulation schemes among the plurality of segments to change the robustness of the information stream from the first robustness level to the second robustness level.

21. The apparatus of claim 20, wherein the plurality of segments modulated using at least two different modulation schemes includes a segment adjacent to where a demodulation of the information stream begins.

22. The apparatus of claim 20, wherein the logic that encapsulates symbols comprises:

logic that adds Forward Error Correction (FEC) coding to at least one segment in the information stream;

wherein the varying of the modulation schemes and the adding of FEC coding change the robustness of the information stream from the first robustness level to the second robustness level.

23. The apparatus of claim 20, wherein the logic that encapsulates

symbols comprises:

logic that adds Forward Error Correction (FEC) coding to a plurality of segments in the information stream using at least two different coding rates; and

logic that varies the coding rates among the plurality of segments;

wherein the varying of the modulation schemes and the varying of the coding rates change the robustness of the information stream from the first robustness level to the second robustness level.

24. The apparatus of claim 23, wherein the plurality of segments among which the modulation schemes vary and the plurality of segments among which the coding rates vary are different pluralities of segments.

25. The apparatus of claim 23, wherein the plurality of segments among which the modulation schemes vary and the plurality of segments among which the coding rates vary are the same plurality of segments.

26. The apparatus of claim 16, wherein the logic that encapsulates symbols, comprises:

an encoder for coding the information stream using convolutional coding at a first coding rate;

logic that punctures the coded information stream; and

logic that varies a rate at which the encoded information stream is punctured to achieve a second coding rate, whereby the robustness level is changed from the first robustness level to the second robustness level.

27. The apparatus of claim 26, wherein the puncturing of the encoded information stream occurs adjacent to a portion of the information

stream where a demodulation of the information stream begins.

28. The apparatus of claim 16, wherein the information stream is comprised of packets.

29. The apparatus of claim 28, wherein the packets comprise a training sequence.

30. An apparatus for synchronization in radio communication systems, comprising:

a receiver for receiving a modulated information stream with a first robustness level sent over a communication channel and then reduced the to a second robustness level according to a predetermined function; and

a demodulator for demodulating the information stream after a first number of symbols have been received, wherein the first number of symbols is less than a second number of symbols that would have to be received to demodulate a corresponding information stream sent over the communication channel only at the second robustness level.

31. A system for synchronization in radio communication systems, comprising:

logic that encapsulates symbols in an information stream;

a modulator for modulating the information stream;

a transmitter for sending the modulated information stream with a first robustness level over a communication channel;

logic that reduces the level of robustness of the information stream to a second robustness level according to a predetermined function;

a receiver for receiving the modulated information stream from the

communication channel; and

a demodulator for demodulating the information stream after a first number of symbols have been received, wherein the first number of symbols is less than a second number of symbols that would have to be received to demodulate a corresponding information stream sent over the communication channel only at the second robustness level.